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In the
Supreme Court of the United States

OCTOBER TERM, 1968

No. 601

ROBERT H. HOWIE, JR.,
PETITIONER,

v.

COMMONWEALTH OF MASSACHUSETTS,
RESPONDENT.

BRIEF OF THE COMMONWEALTH IN OPPOSITION TO THE WRIT OF CERTIORARI

ELLIOT L. RICHARDSON
Attorney General
JOHN J. DRONEY
District Attorney for
The Northern District
HENRY OWENS, JR.
Assistant District Attorney

RUTH I. ABRAMS
WILLIE DAVIS
Assistant Attorney General
with him on the brief.

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Opinion Below

The opinion of the Supreme Judicial Court of Massachusetts is printed in Mass. Adv. Sh. (1968) 937-938. The opinion is reproduced (Infra, Appendix Ap. 12).

Jurisdiction

The Commonwealth contends that there is no jurisdiction since the statute regulates the conditions under which local public highways may be used by motor vehicles. Jurisdiction is claimed by the defendant under 28 U.S.C. Section 1257 without designation of which part of 1257 the claim is being made.

Statement Of Facts

The parties agreed that the defendant did operate a motorcycle on Grove Street, Belmont, a public way, on August 18, 1967, and while so operating he was not wearing any form of head gear. A citation was issued by a Police Officer.

The defendant filed a written motion to dismiss setting forth therein the basis of said motion. The Court denied said motion and made a finding of guilty on the complaint. The defendant objected to the denial of the motion and took exception thereto.

Issues Involved
The Motion To Dismiss

Now comes the defendant in the above-entitled matter, and respectfully moves that this Honorable Court dismiss the said charges against the defendant, and in support of said motion submits the following:

1. The offense charged in this complaint is in violation of the following provisions of the United States Constitution and the Constitution of the Commonwealth of Massachusetts.

   A. The Ninth Amendment—in that it conflicts with the defendant's right of privacy.

   B. The Fourteenth Amendment—in that it conflicts with the defendant's right to be free from State deprivation of . . "liberty . . . without due process of law" and the defendant's right to "equal protection of the laws."

   C. Article I of the First Constitution of the Commonwealth of Massachusetts—in that it conflicts with the right of enjoying . . . their Li-

berty . . . seeking and obtaining" the defendant's "safety and happiness."

The Defendant duly claimed exemption to the denial of his motion to Dismiss.

Statute Involved

General Laws chapter 90, section 7. Brakes, Lights and Other Equipment. Acts 1967, Chapter 13, amends the first paragraph of Section 7 of General Laws chapter 90 by adding the following sentence:

> "Every person operating a motorcycle or riding as a passenger on a motorcycle or in a sidecar attached to a motorcycle shall wear protective head gear conforming with such minimum standards of construction and performance as the registrar may prescribe."

United States Constitution

Ninth Amendment

> "The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

Fourteenth Amendment

> "No state shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; . . .nor deny to any person within its jurisdiction the equal protection of the laws."

MASSACHUSETTS CONSTITUTION

Article I

"All men are born free and equal, and have certain natural, essential, and unalienable rights; among which may be reckoned the right of enjoying and defending their lives and liberties; that of acquiring, possessing, and protecting property; in fine, that of seeking and obtaining their safety and happiness."

Argument

A. THE STATUTE IS A VALID EXERCISE OF POLICE POWER AND IS CONSTITUTIONAL.

The General Court "may adopt every reasonable measure to promote safety of travel upon public ways." *Commonwealth* v. *Boston & Maine Trans. Co.*, 282 Mass. 345, 348. "The police power extends to the reasonable control of travel upon highways in the interest of the public." See *Commonwealth* v. *Slocum*, 230 Mass. 180, 190. "The Commonwealth has power to prescribe the conditions under which public ways may be used by motor vehicles . . ." *Roberto* v. *Department of Public Utilities*, 262 Mass. 538, 587.

"All rational presumptions are made in favor of the validity of every legislative enactment. Enforcement is to be refused only when it is in manifest excess of legislative power." *Commonwealth* v. *Finnegan*, 326 Mass. 378, 379. "It is not for us to inquire into the expediency or the wisdom of the legislative judgment. Unless the act of the Legislature cannot be supported upon any rational basis of fact that reasonably can be conceived to sustain it, the court has no power to strike it down as violative of the Constitution. . ."

Coffee-Rich, Inc. v. *Commissioner of Public Health*
348 Mass. 414, 422.

Three New York lower Courts, in considering the New York counterpart to our statute found the New York statute constitutional.

> "...Pursuant to this power it would seem only reasonable that the state have the right to reasonably regulate how riders and passengers of vehicles susceptible to special dangers and risks should protect themselves on public property. However, there is another, and perhaps more important reason, for believing the law in question to be constitutional. *I believe that there is in fact a real danger to other citizens when a motorcyclist fails to use protective helmets.* And if this is so there is no doubt of the state's right to regulate regardless of what definition of "police power" one uses. (emphasis supplied).
>
> "A mtorcycle is a comparatively light machine which is delicately balanced when operated. There are special conditions, situations or occurrences which could cause a driver to be propelled off the *road or into the opposite lane causing damage to other vehicles or property or injuries to passengers or pedestrians.* (emphasis supplied).
>
> "The old joke about the happy motorcyclist—'the one with the bugs on his teeth"—is not too funny when one hears or reads about instances where cyclists have been hit with hard-shelled beetles or bees and have lost control of their bikes, causing damage and injuries to others.
>
> "Cyclists generally keep to the right of the road where stones and gravel are found which could be propelled by the delicately balanced wheels into the

head of the cyclist or passenger, causing distraction and loss of control.

"Far more than with an automobile or a truck the very nature of a motorcycle requires that a rider be able to control his vehicle at every second. Physicists do not yet know the exact principle which keeps a cycle erect and moving. The successful and enjoyable operation of a motorcycle can only be had when there is a true "man-machine team". The "two" are more truly "one" than with any other means of conveyance. This fact no doubt adds to the enjoyment, excitement and popularity of motorcycling. However, it also means that the rider must always wear the recommended clothing and equipment for his protection as well as the protection of others. This the state has recognized and has a right to insist upon.

"The law in question also requires passengers to wear protective helmets. Although not required to rule upon that question of the law, the court is of the opinion that *passengers are just as susceptible to head injuries as operators and a head injury to a passenger could sufficiently distract a driver to create a danger to other users on the highway.*

"Therefore, it is the decision of the court that under any interpretation of the concept of "police power", *the law is constitutional.* Also, since the defendants have admitted all the factual allegations made against them and since they have raised only the constitutional question, all the defendants herein are found guilty as charged." *People* v. *Bielmeyer*, 282 N.Y.S. 2d 797, 709-801. (Aug. 1967) (emphasis supplied).

Again, in *People* v. *Schmidt IV*, 283 N.Y.S. 2d 290, 292, 293, (Sep. 1967) a New York Court wrote:

"The remaining question concerns the power of the state to regulate individual conduct. The court takes judicial notice of certain dangers inherent in the operation of motorcycles as compared to that of automobiles. The danger of flying stones or other objects from the wheels of moving vehicles is a real one. A blow on the *head of a cyclist not only could endanger himself, but be the cause of injury or death to other users of the public highways. To prevent such possible occurrences is a valid objective for legislative action under the general police power of the state.*

"The courts have held that driving upon our public highways is a privilege and not a right. A person with impaired vision, for example, may be denied an operator's license. Such regulation is a legitimate use of the state's police power. In the field of public safety the legislature should have more latitude in regulating individual conduct. I find the conduct regulated by this subdivision is not beyond the scope of legislative action." (emphasis supplied).

Cf *People* v. *Smallwood*, 277 N.Y.S 2d 429; (Feb. 1967), *People v. Carmichael*, 279 N.Y.S. 2d 272. (April 1967).

Again in *People* v. *Newhouse*, 287 N.Y.S. 2d, 713, 715 (Jan. 1968), a New York Court wrote:

"As for the defendant's argument that the section limits one's personal freedom I find the argument untenable. In an organized society every person is required to exercise a certain amount of restraint and limit certain of his animal instincts, in order to exist, without complete chaos taking place. For example, the enactment of speed limits curtails one's rights; the enactment of certain health laws such as

quarantines or the requirement of inoculations curbs one's rights not to submit to them; the limitation of selling intoxicating beverages to those over eighteen years of age limits both the seller and underage consumer; the enactment of legislation curbing the sale of pornographic literature is a further example of limitation of one's rights.

"I consider the enactment of legislation requiring the use of helmets as a reasonable exercise of police power. *The prevention of critical head injuries and possible thrusting of those so injured as a burden of society is sufficient in and of itself.* The prevention of a motorcycle careening out of control and causing injury to innocent people as the result of an object striking a motorcycle operator in the head is further proof of the need for such a law. One only needs to refer to the comprehensive legislative study for a very adequate reason for the enactment of the section."

The statute is reasonable and bears some relationship to the object intended to be accomplished. The statistics of injuries and fatalities in motorcycle accidents provides a rational basis for the legislation. Of course, every presumption is indulged in favor of the validity of a statute. See *Howes Bros. Co.* v. *Unemployment Compensation Commission*, 296 Mass. 275, 283-284, cert. den. 300 U.S. 657.

The appellants have not shown that there is no conceivable ground for sustaining the statute. This is their burden. See *Commonwealth* v. *Chamberlain*, 343 Mass. 49, 51.

"All rational presumptions are made in favor of the validity of every legislative enactment. Enforcement

> is to be refused only when it is in manifest excess of legislative power. *Druzik* v. *Board of Health of Haverhill,* 324 Mass. 129, 128." *Commonwealth* v. *Finnigan,* 326 Mass. 378, 379.

This statute has a legitimate legislative purpose, is reasonable, rational and is clearly within the police powers of the Commonwealth. The crisis on the highways of Massachusetts clearly indicates that unless safety measures are adopted, fatalities and accidents will continue to grow in number and seriousness. Clearly the legislature is empowered to act to protect all persons using its highways.

B. THERE IS NOTHING UNCONSTITUTIONAL IN REQUIRING ALL PERSONS WHO RIDE MOTORCYCLES TO WEAR HEADGEAR WHILE ON PUBLIC HIGHWAYS.

In *McGowan* v. *Maryland,* 366 U.S. 420, 425, the Supreme Court wrote:

> "Although no precise formula has been developed, the Court has held that the Fourteenth Amendment permits the states a wide scope of discretion in enacting laws which affect some groups of citizens differently than others. *The constitutional safeguard is offended only if the classification rests on grounds wholly irrelevant to the achievement of the State's objective.* State legislatures are presumed to have acted within their constitutional power despite the fact that, in practice, their laws result in some inequality. A statutory discrimination will not be set aside if any state of facts reasonably may be conceived to justify it." (emphasis supplied)

In *Hall-Omar Baking Co.* v. *Commissioner of Labor and Industries,* 344 Mass. 695, 700, the Supreme Judicial Court wrote:

"Legislative classification is valid if it is rational and bears some relationship to the object intended to be accomplished."

Again in *Ginsburg* v. *New York*, U.S. 36 L.W. 4295, the Supreme Court upheld the validity of legislation aimed at protecting a class as being rational and constitutional.

The Registry of Motor Vehicles statistics for this Commonwealth indicate that the chance of death or injury is approximately one-third greater if a person is riding a motorcycle at the time of an accident rather than being in an automobile. See Appendix A. (page 13 and 14)

It should be noted that the grim toll of Americans lost and maimed on the Nation's highways has been so great that the federal government has taken the lead in attempting to curtail death and injury on the highways: See *The National Traffic and Motor Vehicle Safety Act of 1966* (Pub L. 89-533, 80 Stat. 718); *The Highway Safety Act of 1966* (Pub. L. 89-564, 80 Stat. 731); and the *Department of Transportation Act* (Pub. L. 89-568, 80 Stat. 939). The Highway Safety Program standards for Motorcycle Safety are set forth in Appendix C & D (pages 15 thru 32).

Massachusetts has been attempting to regulate its highways to insure better safety for all its citizens. See, for example, Chapter 655 of the Acts of 1966 setting forth tire standards and making it illegal to sell or offer to sell any tire which fails to comply. Section 7 of Chapter 90 is a public safety measure applying equally to all using motorcycles on Massachusetts highways. "There is no arbitrary discrimination in a classification which is rational in scope and effect and bears some manifest relation to the main object sought to be accomplished. Such classification does not create inequity before the law." See *Russell* v. *Trea-*

surer & Receiver General, 331 Mass. 501, 508. *Commonwealth* v. *Zimmerman*, 221 Mass. 184, 189-190.

The statute involved applies to all persons similarly situated. For an example of arbitrary legislation see *Paddock* v. *Brookline*, 347 Mass. 230, 233-236.

Appellants argue that their fatality rate is no greater than that of Class 2C drivers. Firstly, there are no statistics which support appellant's argument. Secondly, in this Commonwealth, statistics indicate that the chances of injury or fatality to a motorcyclist or passenger involved in an accident are one-third greater than the same accidents and injuries in automobiles. Appellant's own figures show a fatality rate 3 times greater by motorcyclists as compared with autombile drivers. The legislation is rational in scope and effect.

The legislation is reasonable, applies to all equally, and is directly reated to highway safety. Even ". . . if the question is fairy debatable, courts cannot substitute their judgment for that of the Legislature." See *Hall-Omar Baking Co.* v. *Commissioner of Labor & Industries*, 344 Mass. 695, 700. The grim statistics of our highways give ample reason for legislative action.

Conclusion

For the reasons stated in this brief the Commonwealth respectfully requests this Honorable Court to deny this writ.

Respectfully submitted
For the Commonwealth,
ELLIOT L. RICHARDSON
Attorney General
JOHN J. DRONEY
District Attorney for
The Northern District
HENRY OWENS, JR.
Assistant District Attorney

RUTH I. ABRAMS
WILLIE DAVIS, *Assistant Attorney General*
with him on the brief.

Appendix A.

COMMONWEALTH *vs.* ROBERT H. HOWIE, JR.
[Rescript Opinion.]

The defendant appeals from a finding of guilty of violating G. L. c. 90, § 7, for not wearing protective headgear while operating a motorcycle. Upon appeal from a finding in the District Court the case was heard by a judge sitting without jury in the Third District Court of Eastern Middlesex under St. 1964, c. 628. The defendant filed a written motion to dismiss which was denied, and he was again found guilty. The defendant excepts to the denial of his motion to dismiss. There was no error. General Laws c. 90, § 7, requires every person operating or riding a motorcycle to wear protective headgear conforming with certain minimum standards. It lies within the power of the Legislature to adopt reasonable measures for the promotion of safety upon public ways in the interests of motorcyclists and others who may use them. *Commonwealth* v. *Boston & Maine Transp. Co.* 282 Mass. 345, 348. The act of the Legislature bears a real and substantial relation to the public health and general welfare and is thus a valid exercise of the police power. *Coffee-Rich, Inc.* v. *Commissioner of Pub. Health,* 348 Mass. 414, 422. As contended by the Commonwealth, "[t]he legislation is reasonable, applies to all equally, and is directly related to highway safety." See *Hall-Omar Baking Co.* v. *Commissioner of Labor & Indus.* 344 Mass. 695, 700. A recent Michigan decision to the contrary is not persuasive. On this general subject we find ourselves in agreement with *Colvin* v. *Lombardi,* R.I. , *decided May 8, 1968.

Exceptions overruled.

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* (May 28, 1968) 36 U. S. L. Week 2732.

Appendix B.

Registry of Motor Vehicles Accident Statistics

During the year 1965, Registry of Motor Vehicles statistics indicate that when motorcycles, motorbikes and scooters are involved in accidents, in 95% of the involvements, the bike riders are killed or injured. (2.3% fatal-92.5% non-fatal). When other types of vehicles are involved in accidents, injuries, fatal and non-fatal, occur in 69.4% of the involvements.

In 1966, the ratio was 94.7% killed or injured on motorcycles, as against 67.7% for all other motor vehicles.

An analysis of the accident reports for the years 1965 and 1966 is found on the next page.

Vehicle Type	*Year*	*Fatal*	*Non-Fatal*	*Property Damage*	*Total Vehicle Involvement*
Motorcycles, Motor-bikes, scooters	1965	32	1313	75	1420
		2.3%	92.5%	5.2%	100%
All other motor vehicles	,,	950	145,633	64,711	211,294
		0.4%	69.0%	30.6%	100%
Motorcycles, Motor-bikes, scooters	1966	*38	1506	77	1621
		2.3%	92%	4.8%	100%
All other motor vehicles	,,	1,098	158,188	76,187	235,473
		0.5%	67.2%	32.3%	100%

* In 1966, more detailed records were maintained, and during that year, the 38 fatal accidents involved three motor-bikes, 5 scooters and 30 motorcycles; killed, were 31 operators and eight passengers on these vehicles. 34 of the fatal accidents were studied by the Registry. In 30 cases the medical examiner's report lists the cause of death as head injury, skull fracture with brain laceration; in the remaining 4, 1 was crushed by a bus, 3 died of other causes, one operator while not killed has permanent amnesia. Of the thirty cases, in which the cause of death was a head injury, 3 had helmets on, although the type and specifications of the helmets are unknown.

Appendix C.

U. S. Department of Transportation
Federal Highway Administration
National Highway Safety Bureau .
Washington, D.C. 20591

June 27,1967

Highway Safety Program Standard 4.4.3

Motorcycle Safety

Introduction

It is clear that there are many actions which can be taken to reduce significantly deaths and injuries from motorcycle accidents. Every State should have a program specifically related to motorcycle operation including requirements for licensing, inspection and safety equipment.

Background

Deaths and injuries from motorcycle accidents doubled between 1963 and 1965. This fact is particularly alarming when it is understood that most of those killed and injured were young people under the age of 25. Motorcycle registrations have jumped from 574,080 in 1960 to 1,914,-700 in 1966. By 1970 the annual increase is expected to reach one million per year. Motorcycle safety takes on grave dimensions in view of the fact that since 1960 the rate of motorcycle fatalities has increased at about the same rate as the number of motorcycles.

Purpose

To assure that motorcycles, motorcycle operators and their passengers meet standards which contribute to safe operation and protection from injuries.

Standard

For the purpose of this standard a motorcycle is defined as any motor-driven vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, but excluding tractors and vehicles on which the operator and passengers ride within an enclosed cab.

Each State shall have a motorcycle safety program to insure that only persons physically and mentally qualified will be licensed to operate a motorcycle; that protective safety equipment for drivers and passengers will be worn; and that the motorcycle meets standards for safety equipment.

I. The program shall provide as a minimum that:

A. Each person who operates a motorcycle:

1. Passes an examination or reexamination designed especially for motorcycle operation.

2. Holds a license issued specifically for motorcycle use or a regular license endorsed for each purpose.

B. Each motorcycle operator wears an approved safety helmet and eye protection when he is operating his vehicle on streets and highways.

C. Each motorcycle passenger wears an approved safety helmet, and is provided with a seat and footrest.

D. Each motorcycle is equipped with a rear-view mirror.

E. Each motorcycle is inspected at the time it is initially registered and at least annually thereafter, or in accordance with the State's inspection requirements.*

II. The program shall be periodically evaluated by the State for its effectiveness in terms of reductions in accidents and their end results, and the National Highway Safety Bureau shall be provided with an evaluation summary.

* See Periodic Motor Vehicle Inspection standard.

Motorcycles, and Rider Deaths Increase Sharply

The number of motorcycles in the U. S. has been rising sharply in recent years, as shown in the table below. Compared with a 26 per cent increase in all motor vehicles since 1961, motorcycles have increased about 200 per cent.
Deaths of motorcycle riders since 1961 have increased 210 per cent. While this is a little less than the increase in motorcycles, indicating that the rate has not increased, the rising number of deaths, and the high death rate as noted below, should be of concern.

Mileage figures for motorcycles are not fully available, but estimates of use indicate that the mileage death rate, based on rider deaths only, may range between 20 and 40 (deaths per 100,000,000 vehicle miles of travel). This compares with the 1966 mileage death rate for all motor vehicles of 5.7, which includes pedestrian and other nonoccupant deaths as well as occupant deaths.

Table 2

Motorcycle* and Total Motor-Vehicle Data, 1960-1966

Year	VEHICLES — Motorcycles No.	Motorcycles Yearly % Change	Total Mot. Veh. No.	Total Mot. Veh. Yearly % Change	DEATHS — Motorcycle Riders No.	Motorcycle Riders Yearly % Change	All Mot. Veh. Occupants No.	All Mot. Veh. Occupants Yearly % Change
1960	575,497	—	74,500,000	—	731	—	29,750	—
1961	595,669	+ 3.5	76,400,000	+ 2.6	697	— 4.7	29,850	+ 0.
1962	660,400	+10.9	79,700,000	+ 4.3	759	+ 8.9	32,300	+ 8.
1963	786,318	+19.1	83,500,000	+ 4.8	882	+16.2	34,700	+ 7.
1964	984,763	+25.2	87,300,000	+ 4.6	1,118	+26.8	37,900	+ 9.
1965	1,381,956	+40.3	91,800,000	+ 5.2	1,515	+35.5	39,450	+ 4.
1966	1,914,700	+38.5	96,100,000	+ 4.7	2,160	+42.6	42,850	+ 8.

Source: Vehicles — U.S. Bureau of Public Roads; Motorcycle rider deaths. 1960-1965 — National Center for Health Statistics; Motorcycle rider deaths, 1966, and motor-vehicle occupant deaths — National Safety Council.

* Includes motor scooter, motorized bicycle, and motorized tricycle.

Taken from *Accident Facts*, 1967 edition.

Severity of Motorcycle Accidents

When a motorcyclist is involved in an accident, his chances of being injured or killed are greater then if he were riding in a vehicle which afforded more protection. A Wisconsin study of motorcycle accidents during 1965 showed that injury or death to motorcyclists occurred in 89.6 per cent of all the accidents involving this vehicle. Nationally, for all types of vehicles, 9.1 per cent of the accidents involved death or injury. New York State studies conducted in 1962 and 1964 showed similar results in that 85.6 per cent of motorcycle accidents involved death or injury. A New Jersey 1965 study reported 90.8 per cent death or injury; Vermont, 80.1 per cent in 1966.

Injuries sustained by motorcyclists involved in accidents tend to be more severe than those to people in accidents involving all vehicles, according to New York State studies. For example, 23 per cent of those injured in motorcycle accidents suffered the most severe type of injury compared with 11 per cent in accidents involving all types of vehicles. New Jersey had similar experience with motorcyclists having serious injury twice as frequently, percentage-wise, as occupants of all vehicles.

The 1964 New York motorcycle study showed a registration death rate (deaths per 10,000 registrations) for all vehicles of 3.3 compared to a rate of 11.9 for motorcycles. The injury rate per 10,000 registrations of all vehicles was 360; for motorcycles, 691.

The actual number of motorcyclists injured annually is not known. However, for 1966, the total is indicated to have been approximately 250,000, including both minor and severe injuries.

Types of Motorcycle Accidents

Collision with other motor vehicles is the predominant type of motorcycle accident. The per cent this type of accident is of all accidents involving motorcycles ranges from 59 per cent in Washington to 82 per cent in Illinois. Non-collision accdients are next in importance.

In collisions with other vehicles, the motorcyclist is not always to blame. Many people have observed that drivers of larger vehicles do not always realize that motorcycles, and especially motor scooters and motor bicycles, are also motor vehicles and should be treated as such. In most cases, automobile drivers claim they simply did not see a motorcyclist in time to avoid an accident.

The directional analysis of motorcycle-other vehicle collisions in New York revealed that 66 per cent of the accidents (133 of 200 studied) involved motorcycle collisions with passenger cars or trucks. Of the two-vehicle collisions, 66 per cent (87 accidents) were right-angle collisions at intersections, parking lot entrance or driveways. A cycle hit a car in 62 cases; a car hit a cycle in 25.

Contributing Circumstances

Due to different categories of possible contributing circumstances to motorcycle accidents, a complete comparison between the state reports is not possible. Wisconsin, Washington and Michigan listed "speed too fast" as the principal circumstance. New York listed "reckless driving" first. Failure to yield right of way was also commonly mentioned as a contributing circumstance in the state studies.

Speed. Although not specifically mentioned in all state reports, speed usually included speed too fast for conditions. Two states, Vermont and Washington, supplied in-

formation on the speed of the motorcycle at the time of the accident. In both studies the speed range most often recorded was 21 m.p.h. to 30 m.p.h. The Washington study indicated that standard-size motorcycles tended to be involved in accidents at a somewhat higher speed than lightweight motorcycles were.

Stopping Distances. Limited tests have recently been conducted to compare the stopping distances of motorcycles and passenger cars. Contrary to popular belief, motorcycle stopping distances are longer than those of passenger cars. How much longer depends upon the type of motorcycle and the experience of the driver.

Time and Day of Week and Month

Motorcycle accidents occur most frequently between 4 p.m. and 6 p.m., according to state studies. These are also the hours during which all motor vehicle accidents occur most often. Motorcycle accidents also frequently occur between 3:00 and 4:00 in the afternoon, and 6:00 and 7:00 in the evening.

The studies indicate Saturday to be the worst day of the week for motorcycle accidents. Again, this is also the worst day for all vehicle accidents. No general statement can be made about which day has the fewest accidents involving motorcycles since the studies vary, showing every week day except Friday for any one state, and, in the case of a Minneapolis, Minnesota study, Sunday.

It is no surprise that the summer months—June, July, and August—have the most motorcycle accidents.

Roads and Weather

The majority of motorcycle accidents (84 to 91 per cent) occur on dry roads. This might be expected since motor-

cycles are not driven much on wet or icy roads. New York shows that most of the accidents occurred on level roads with no traffic control devices present. Accidents happen with equal frequency at intersections and between intersections. A majority of the accidents take place during daylight hours.

There is some indication that loose material, such as gravel, on the roadway, contributes to motorcycle accidents, particularly in those cases where the driver loses control of his machine.

Age, Sex, Residence of Driver

All studies, except New York's, show that a majority of motorcycle operators involved in accidents are young—under 25 years old. With the exception of New York and New Jersey, the other studies show from 45 to 66 per cent of the motorcyclists in accidents are under 20 years of age.

In excess of 90 per cent of the motorcycle drivers were males. However, limited information indicates that about 80 per cent of the people killed or injured were male and 20 per cent were female. Obviously, then, many of the females injured were passengers on the machines.

The Vermont study reported that the motorcycle operator was within five miles of his residence when involved in an accident in 64 per cent of the cases; within 15 miles in 79 per cent. Michigan and New Jersey reported the motorcyclist to be a local resident in about three-fourths of the accidents.

Passengers and Drivers

The only information available on whether the person injured was a driver or passenger comes from newspaper

clippings. These showed that 70.6 per cent of the injured were drivers and 29.4 per cent were passengers. It is possible that these figures are biased toward passengers since accidents involving motorcycles carrying more than one rider are more likely to be reported in newspaper than those involving one rider.

Experience of Driver

Limited information is available on the driving experience of motorcyclists involved in accidents. A survey of 123 patients at the Methodist Hospital in St. Louis Park, Minnesota, and at the Hennepin County General Hospital, Minneapolis, revealed that 20 per cent were riding the motorcycle for only the first or second time. A study of motorcycle accident victims in the Charlottesville, Virginia area showed that 72 per cent of the operators had received no instruction in operating motorcycles. The Vermont study reported 21 per cent of the operators had had driver's licenses for less than one year. Since cycling has increased greatly in recent years and the average age of motorcyclists is young, it could be surmised that most motorcyclists involved in accidents have not had much driving experience.

The hospital study mentioned above reported that 70 per cent of the injured had either rented or borrowed the motorcycle. A study by the Minneapolis Police Department showed similar results. Oregon showed that slightly more than 10 per cent of the motorcycle operators were not legally licensed at the time of the accident.

Part of Body Injured

All studies show that the parts of a motorcyclist's body most often injured are the head, arm, and leg. Internal injuries and multiple injury also commonly occur how-

ever. Apparently the most serious type injury is that occurring to the head. An Illinois study revealed that two-thirds of the motorcyclists killed in the State suffered skull fractures. This type of injury predominated over any other type.

Crash Helmets

Information regarding the percentage of motorcycle riders wearing protective head-gear has not been formally collected. A personal study conducted in Hamilton County, Ohio (Cincinnati and vicinity) indicated that only about 10 per cent of the motorcyclists in accidents wore protective headgear. The Charlottesville, Virginia report showed that 28 per cent of the cyclists injured wore helmets. The prevalence and severity of head injuries (see above) would be a further indication of the unfortunately low use of protective headgear.

A paper presented by R. J. Smeed at the 1964 International Road Safety Congress in London, England, reported the following British experience:

> An analysis of the effect of the wearing of safety helmets by riders of motorcycles showed that the wearing of such helmets reduced by 30-40 per cent the risk of injury to the part of the head that they covered, and reduced the risk of death by 25 per cent in built-up areas and by 50 per cent in non-built-up areas.

While this British study may not fully represent American experience, there can be little doubt that use of proper protective headgear can reduce the frequency and severity of head injuries. The headgear could also give a motorcyclist identity as a motorcyclist and increase his visibility to other motorists. The Council recommends the use

of proper protective headgear for all motorcycle operators and passengers.

Make and Weight of Motorcycle

A statement regarding the accident experience and relative safety of different brands of motorcycles cannot be made. Little information is available on this subject and the information is inconclusive.

An Oregon study commented on the relationship between motorcycle weight and accident severity. The report stated, "There was a tendency for higher percents of personal injury accidents as the weights of the vehicles decreased."

Available statistics indicate, however, that drivers of lightweight motorcycles, motor scooters, and motorized bicycles are somewhat younger than drivers of standard motorcycles. There is also reason to believe these drivers have less driving experience than operators of the larger machines.

Motor Scooter Accidents

A National Safety Council study of 1958 fatal motor scooter accidents showed that 35 per cent of the victims were under 16 years of age although not all were drivers. Sixty per cent of the victims were under 21 years of age. The motor scooter study revealed other facts similar to those presented in this report.

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Prepared by
Statistics Division
National Safety Council
425 N. Michigan Ave.
Chicago, Ill. 60611

NATIONAL SAFETY COUNCIL
425 N. Michigan Ave., Chicago, Ill. 60611

PUBLIC INFORMATION
(312) 527-4800

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Contact: Ed Nelson
Extension 411

FOR IMMEDIATE RELEASE TO ALL CHICAGO MEDIA

CHICAGO, ILL., Feb. 9—Motorcycle deaths decreased during 1967, according to preliminary data just announced by the National Safety Council.

The decrease, from 2,050 deaths in 1966 to 1,950 last year—the first reduction after six annual increases, was even more dramatic in the light of large continuing increases in motorcycle use. Motorcycle registrations after

1967 totaled 2,190,000—an increase of 438,000 during the year.

"The indicated 24-per cent reduction in the death rate per 10,000 registered motorcycles during the year is the most encouraging traffic statistic I've seen in several years," said Howard Pyle, Safety Council President.

"It seems very clear that the leadership of the National Highway Safety Bureau in setting standards for motorcycle equipment, motorcycle driver license tests, and the wearing of safety helmets played a major part in this turn-around. Naturally great credit also is due the governors and legislators who acted so promptly on the motorcycle problem."

Pyle explained that by the end of 1967 a total of at least 34 states had special laws regarding motorcycle safety. In the 30 states that require the wearing of helmets, deaths in 1967 decreased as much 59 per cent (In New York) from the previous year. On the other hand, California—which leads the nation in total motorcycle registrations, but has no protective helmet law—saw a 9 per cent increase in motorcycle fatalities.

Eighteen states require a special licensing test; 16 demand special motorcycle safety equipment; and 14 limit lane-of-traffic use and the number allowed to ride a motorcycle at once.

"Probably the special license test is especially important" Pyle said, "since earlier studies showed that a large proportion of motorcycle accidents occur during the first one or two times an individual ever took a machine out for a run. And the helmet is a direct antidote for the high frequency of head injuries—the number one cause of motorcycle death."

"Dr. William Haddon, Jr., director of the National Highway Safety Bureau, has been confronted by many problems and challenges as he has worked to implement the im-